CENTRAL VALLEY FISH FACILITIES COORDINATION TEAM

09 February 2000 – Meeting Notes

Attendees:

Alan Baracco (CDFG)
Ron Ott (CALFED)
Ron Bachman (USFWS; AFSP)
Dan Odenweller (CDFG)
Jim Bybee (NMFS)
Jim Buell (SWC)
Marianne Hallet (NRCS)
John Andrew (DWR)
Ron Brockman (USBR)
Randy Brown (DWR)

Guests:

Ron Kino (Southern Energy)
Steve Gallo (Southern Energy)

Agenda:

- Cent. Val. Fish Facil. Review Team recommendations on Tracy (incl. "Opt. 4)
- Gunderboom – Southern Energy: Presentation and discussion; recommendations
- Monster Flume – USBR/UC Davis relationship; Denver trip recap.
- Boeger Farms – Conflict between CalFed funded pump/screen and SB 1086 meander corridor
- NMFS / CDFG Striped Bass Mgmt Prog. Sec. 10 mitigation – fish screen criteria, evaluation
- CVFFCT future meeting schedule
- USFWS "technical representatives"
- Screen Workshop and CalNeva AFS meeting – combining the two events
- Sherman Island So. Delta Barrier mitigation screen maintenance/retrofit
- CVFFCT "Group Charter" and "Purpose" – Review
- CALFED Science Conference – Need for a fish screen technical session

Cent. Val. Fish Facil. Review Team (CVFFRT) recommendations on Tracy (incl. "Opt. 4)

Ron Brockman summarized the Tracy Technical Advisory Team (TTAT) review process for the proposed Tracy Fish Test Facility (TFTF), emphasizing the issue of whether to build a "hybrid" low-head pump and all-gravity testing system. Ron passed out the written recommendation from the CVFFRT to proceed with preliminary design of "Option 3b", which is the hybrid system with delayed full-gravity build-out only in the event of poor performance of fish lifts in initial testing of those elements. The Coordinators were informed that there is an "Option 4" presently being developed by the Bureau which would involve full build-out of the hybrid system to start with, and simultaneous testing of both gravity and fish lift approaches. This option has not yet been formally presented to the TTAT, so recommendations regarding specifics of this option are premature. The

USFWS "position paper" which argues for the latter approach was attached to the written recommendation from the CVFFRT. These issues were discussed, including the relative costs, according to DRAFT estimates produced by the Bureau. Preliminary estimates place the costs for Option 3b at $60,000,000 *excluding* regulatory review, evaluation and study costs (design and construct only). The target for contract award is 2002. The preliminary estimates for Option 4 costs are $73,000,000 excluding regulatory review, evaluation and study costs. It was noted that there had been no discounting for out-year expenditures associated with all-gravity elements in Option 3b (probably at least 7 years out), as opposed to front-end all-gravity element costs associated with Option 4. This will be taken up in the TTAT and by the CVFFRT at the appropriate time, after Option 4 has been formally presented to the TTAT.

The Value Engineering study has been completed, and documents are in preparation. Copies will be distributed soon.

Decision: *The coordinators formally endorsed proceeding by the TTAT on consideration of Option 4 and moving ahead with the next stages of preliminary design. The question of whether to recommend Option 3b or Option 4, which are not mutually exclusive at this stage of preliminary design, will be taken up after formal presentation of Option 4 and its consideration by the TTAT and the CVFFRT.*

Gunderboom – Southern Energy presentation, discussion, recommendations

Steve Gallo (Southern Energy) gave a presentation of the proposed deployment of a "Gunderboom" as a fish protection device in an arc in front of Southern's newly acquired (from PG&E) Contra Costa Power Plant. This device is a double-layered curtain of a polypropylene/polyethylene blend, random-oriented fibre fabric which would be suspended from a floating boom and anchored and sealed to the river bottom using boom chains and concrete anchors. The fabric is pierced with small holes (3/32 in dia. are proposed). Drawings were passed out. The reason for proposed deployment of this device is to reduce or (hopefully) eliminate entrainment of delta smelt, striped bass and other species into the plant's cooling system. This technology has been successfully deployed in association with river dredging activities at several sites in Alaska and has been successfully deployed as a cooling water fish exclusion device at a large power plant on the Hudson River. In the east coast application, this was considered "best technology available" (BTA); 0.5 mm dia. holes were used instead of the 3/32 proposed for the Contra Costa application. At the Contra Costa site, the curtain would be required to filter approximately 660 cfs (305 kgpm) of water. The preliminary design calls for a 1,700 ft long boom with a maximum depth of about 23 ft. Water velocities through the fabric would be about 0.02-0.04 fps.

This is still considered a "prototype" or "experimental" technology, since wide acceptance has not yet been achieved, and there is only one cooling water application to date (Hudson River application). If this technology proves out, Southern would propose to deploy a similar but larger system at their Pittsburg plant. This latter facility would have to filter about 1,500 cfs, and the fabric curtain would be proportionately longer than the experimental deployment at the Contra Costa site. Other benefits of having this technology prove out could include application at a variety of other diversions, especially small to mid-sized diversions, elsewhere in the CV. This could benefit a

number of water and environmental interests, especially in the event that delta smelt egg and larval life stages could be protected. This adds special urgency to a fast-track demonstration process.

Southern would like very much to deploy the Gunderboom at the Contra Costa site *this year* with a target date of (early?) June. The CVFFRT had seen the proposal and requested that the CVFFCT approve a "fast track" approach for securing a permit to test the Gunderboom at the Contra Costa power plant.

The Coordinators discussed this proposal and the attending administrative difficulties related to a fast-track deployment process. Potential solutions identified included separating the experimental technology tests from the Section 10 and HCP process for the power plant as a whole. There would still likely be permits and consultation, but the number and severity of issues would likely decrease. In addition, since there could very well be substantial benefits of this technology in other areas of the Delta and the Central Valley, with both federal and state water projects standing to benefit. On this basis, the idea of forming a federal nexus with the USBR or possibly the COE was explored. If there could be a federal nexus, a Section 7 consultation process could be pursued, with much fewer delays than the ongoing, delay-ridden Section 10 consultation process.

The subject of mitigation was discussed. It was noted that there is a delta smelt habitat mitigation bank located on an island directly across the water from the Contra Costa site, with mitigation in place. It should be a simple matter for Southern to purchase 1 or 2 years' worth of mitigation from the bank to take care of the technology experiments while their Section 10 and HCP negotiations for the power plants as a whole are moving forward. This would be consistent with the separation of the experimental technology tests from the power plant consultation process as discussed earlier. It was also noted that the draft HCP has upwards of 100 ac of delta smelt habitat creation or improvement, which is a 20-fold factor over the 5-7 ac of habitat, with high associated entrainment risks under existing conditions, which would be within the arc of the Gunderboom. Once the HCP was approved and implemented, its mitigation should supplant that purchased on a temporary basis from the bank.

Decision: It was decided that the Coordinators would recommend to the Directors:

-The CVFFRT request to pursue a "fast track" permit for the testing of the "Gunderboom" at the Contra Costa power plant was approved. Staff are to keep the management team informed, and the policy group will be advised of the activity. Alan Baracco and Ron Ott will pass on the recommendation to F&G and FWS. Ron Brockman will coordinate with the USBR.

-The USFWS was not represented at the meeting, and this presented a serious problem which the management will have to address.

Monster Flume – USBR/UC Davis relationship; Denver trip recap.

The "monster flume", a large hydraulic testing facility recently constructed at the UC Davis Hydraulics Lab, is capable of preliminarily testing several elements being considered for the TFTF. In addition, the USBR Hydraulics Lab in Denver is also capable of testing some of the elements.

If CALFED schedules are to be met, it is likely that efficient use of *both* facilities will be required. Accordingly, several UC Davis, DWR and other representatives visited the Denver lab to get a feeling of that facility's capabilities, compared to the UC Davis lab. The primary question to be addressed is how to best (most efficiently) use the available USBR funding for preliminary research into design elements associated with the TFTF. It was advised that hydraulics lab studies at both facilities should be focused on elements that cannot be easily changed after construction. It was also noted that certain CCFB issues may be best addressed in hydraulics lab work, especially some of the "unique" setting issues. At the same time it was noted that the SWP support for the TFTF has always been with the understanding that significant CCFB benefits would come out of research conducted at the TFTF itself.

The current status is that the Denver staff and the UC Davis staff are putting together a list of priority TFTF research topics which might best be handled by the respective labs. This will become a "joint proposal" which will be presented to the TTAT members by 01 March, to be discussed at their next meeting a few days later. The next step will be to send recommendations from the TTAT to the CVFFRT.

Money for finishing the Monster flume is being held pending the outcome of the review of the joint proposal. This money *may* be passed through DWR, but certain administrative questions remain on that issue. The Expert Panel should probably review the final outcome and give the benefit of their independent review to the CCFFRT and the CVFFCT. No CVFFCT action was required on this agenda item.

NMFS / CDFG Striped Bass Mgmt Prog. Sec. 10 mitigation – fish screen criteria, evaluation

Alan Baracco summarized meetings which were held between CDFG and NMFS to resolve issues related to screening priorities pursuant to Striped Bass Management Program Section 10 mitigation obligations. Both Screen Criteria and the Screen Evaluation Process were discussed. Criteria decisions included:

- Screens will be in the Sacramento River
- Priority sites will be identified in reaches described in the Sec. 10 permit, defined by:
  - Red Bluff
  - Hamilton City
  - Colusa
  - Verona
- Emphasis will be on diversions of less than 40 cfs because:
  - The AFSP emphasizes larger ones
  - NMFS favors screens which can be entirely funded within the program
  - CDFG wishes to promote screening of small diversions
- Voluntary landowner participation
- CDFG will be responsible for seeing that screens are maintained.

The evaluation process includes:

- Preparation of a package for review

- NMFS review of package and approval
- CVFFRT review
- Striped Bass Stamp Fund Advisory Committee review and funding recommendations
- Formal NMFS approval
- CDFG or contractors move to construction
- Recognition of mitigation obligation having been met by NMFS

CVFFCT future meeting schedule

A meeting schedule was passed out. The CVFFCT will meet formally on the second Wednesday of every other month for the rest of 2000, with conference or "urgent" called meetings as needed. Other review group meetings (*e.g.* CVFFRT) were also on the schedule, subject to change.

USFWS "technical representatives"

The subject of the need for more technical qualifications and experience of the "technical representatives" from the USFWS participating on various Technical Advisory Teams and becoming involved in decisions and recommendations related to fish protection facilities was discussed. It was observed stated that a FWS engineer from the Portland office, Jim Stowe, had been showing up in a project review capacity on the California coast (working with Marcin Whitman, CDFG), and that he seemed to have expertise in screening and passage. It was suggested that the Coordinators should recommend to the Directors that a request be made to the FWS to have Stowe assigned to the TAT's and probably the CVFFRT.

Decision: *The Coordinators concluded that a recommendation should be made to the FWS that Jim Stowe of the Portland FWS office participate as a representatives on TAT's and the CVFFRT. Ron Ott will contact FWS about this recommendation.*

CVFFCT "Group Charter" and "Purpose" – Review

Alan Baracco reviewed the "charter" for the CVFFCT out of the Project Management Organization Agreement (signatories: CALFED, USBR, DWR, USFWS, NMFS, CDFG), particularly the portion outlining the specific duties and responsibilities of the Team. It was concluded that the Team is generally on track with duties and responsibilities. Certain issues were identified (re-identified) that need to be "elevated" to the Director level:

- Fast-track Gunderboom, federal nexus, Section 7 consultation (Contra Costa Power Plant)
- Tracy Fish Test Facility recommendation
- USFWS representation on technical teams
- Conflict, AFSP/CALFED screening projects and SB-1086 meander corridor setbacks
- Sherman Island screen repair/retrofit
- Boeger Farms diversion conflict with SB-1086 meander corridor levee setbacks

CALFED Science Conference – Need for a fish screen technical session

Randy Brown introduced the idea of a technical session dealing with "real" issues related to screening projects/technology at the upcoming CALFED Science Conference. Presentations should *not* be "show-and-tell" but should deal with more global technology problems, solutions and approaches. Examples could be Treadmill results, performance data on conical screens and future applications, problems and solutions related to recent drum screen failures, emerging technologies, etc. A call for abstracts will be distributed in early March. The deadline for the submittal of abstracts is June 2nd. Web site **(http://www.iep.water.ca.gov/calfed/sciconf1/)**. The Coordinators appeared to be generally supportive of this idea. No specific action was associated with this agenda item.

Boeger Farms – Conflict, CALFED funded pump/screen and SB-1086 meander corridor

Dan Odenweller discussed the relatively serious communication failure which has led to the potential conflict between a CALFED funded new pumping facility and associated fish screen at the Boeger Farms site and the SB-1086 meander corridor levee setback program. The new Boeger Farms diversion site constitutes a "hard point" in the river, but the current maps of the meander corridor levee setbacks would take this point out. This is an *excellent* example of the kind of problem that can and will arise when two programs move forward without overall coordination and communication. The databases are in place, including GIS maps, which can resolve these potential problems, but they have not been put to good advantage. Instead, two policy decisions were made independent of each other, and the conflict resulted. The possibility of the Coordinators making a policy-level recommendation to develop an integration strategy was discussed, but this was rejected because it would probably just further complicate an already complicated administrative system with another layer. It was pointed out that the levee setback program is a "programmatic level" document, but some of the associated maps have frightened landowners into thinking their land would be condemned.

Decision: *It was decided that the Coordinators should elevate the issue and the example to the Director level, but let those who are now aware of and working on this problem continue to try to resolve this situation in a way which will prevent or reduce future potential conflicts. Ron Ott will elevate the issue and the example to the appropriate CALFED personnel.*

Sherman Island So. Delta Barrier mitigation screen maintenance/retrofit

John Andrews described the situation. Several screens have been installed on DWR diversions on Sherman Island pursuant to FWS mitigation requirements for the South Delta Barriers Program. Seven of the nine screens originally installed suffered mechanical failures relating to their cleaning systems leading to overall screen failure. Specific problems were identified and solutions developed. One of the most important solution elements to the retrofit/repair is to make the screens removable during the off-season to prevent a maintenance nightmare and frequent system failure. This involves driving two pilings per screen which takes about 20 minutes per piling, once the equipment is mobilized. The USFWS has expressed concern for the repair/retrofit because the pilings would be in "critical delta smelt habitat". It was noted that timing is critical, since the repair/retrofit must be accomplished prior to the start of the irrigation season.

Decision: *Since this discussion USFWS has addressed these concerns and approved DWR's retrofit*